Human, Recombinant
Expressed in Sf21 cells

**Product Description**
Recombinant Human Interleukin-11 (IL-11) is produced from a DNA sequence encoding human IL-11 precursor protein (199 amino acid). Recombinant mature IL-11 (178 amino acid residues) has a predicted molecular mass of approximately 19 kDa. In SDS-PAGE, it migrates with an apparent molecular mass of 23 kDa. IL-11 contains no cysteine residues or potential glycosylation sites. Human IL-11 is active on mouse cells.

Interleukin-11, a pleiotropic cytokine, was originally identified in the conditioned medium of an IL-1α-stimulated primate bone marrow stromal cell line, PU-34, as a mitogen for the IL-6-responsive murine plasmacytoma cell line, T1165.

Interleukin-11 affects growth and differentiation on both hematopoietic and nonhematopoietic cells. It acts on hematopoietic progenitor cells and stromal cells. IL-11 will enhance the proliferation of IL-6 dependent plasmacytoma cells. It stimulates the production of erythrocytes and megakaryocytes. Synergistically with IL-3, IL-4, and SCF (stem cell factor), IL-11 is able to shorten the G0 period of early hematopoietic progenitors. IL-11 stimulates the synthesis of acute phase protein secretion in the liver and T cell-dependent development of specific immunoglobulin-secreting B cells. It was also discovered to be an adipogenesis inhibitory factor (AGIF).

IL-11 exerts its biological activities through binding to a specific high-affinity receptor complex consisting of an IL-11 receptor α chain and gp130.

**Reagent**
Recombinant Human Interleukin-11 (IL-11) is supplied as approximately 5 µg of protein lyophilized from a 0.2 µm filtered solution in phosphate buffered saline (PBS) and 1 mM EDTA containing 0.25 mg of bovine serum albumin.

**Preparation Instructions**
Reconstitute the contents of the vial using sterile phosphate buffered saline (PBS) containing at least 0.1% bovine serum albumin. Prepare a stock solution of no less than 1 µg/ml.

**Storage/Stability**
Store at −20 °C. Upon reconstitution, store at 2 °C to 8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Do not store in a frost-free freezer.

**Product Profile**
Recombinant Human Interleukin-11 is measured in a cell proliferation assay using T11 cells, a subline of the IL-6-dependent mouse plasmacytoma cell-line T1165.85.2.1 that has been adapted to in IL-11). The ED50 for this effect is typically 0.06 to 0.24 ng/ml.

The ED50 is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

**Purity**
> 97% as determined by SDS-PAGE, visualized by silver stain.

**Endotoxin level**
< 0.1 ng/µg protein as determined by the LAL (Limulus amebocyte lysate) method.
References